

Types and Roles of Systems Engineers

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Abstract. The correct placement of Systems Engineers (S.E.) is of importance to the efficient management of programs and projects. Following this observation, the result of many years of experience in Systems Engineering management, a research was initiated with the goal of improving S.E. selection and placement. In the framework of the research the assumption that different styles of Systems Engineering and S.E. types do exist was verified. To improve the ability to identify and to describe the different S.E. types, a model was created dubbed the "kite" model. This simple model is used as a tool to identify the different S.E. types and as a way to describe them. To achieve the correct matching of the S.E. types to the numerous roles and tasks of S.E. the roles and tasks were analyzed and organized into six categories. This grouping makes the task of matching S.E. types simple and easy. Finally several case studies and real life stories are presented to illustrate the importance of correct and timely positioning of Systems Engineers. This paper summarizes four years of research conducted under the auspices of the Gordon Center for Systems Engineering at the Technion I.I.T, Haifa. We would like to thank the Gordon Center and Prof. Aviv Rosen, Head of the Center for supporting and funding this research.